

REMARKS/ARGUMENTS

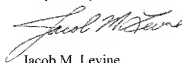
Claims 1 through 16, all the claims of the application, were rejected under 35 USC Section 103(a) as being unpatentable over (i) U.S. Patent No. 6,063,741 to Naitoh et al. (hereinafter the "Naitoh et al. '741 patent"), in combination with either U.S. Patent No. 6,139,022 to Iwashita et al. (hereinafter the "Iwashita et al. '922 patent") or U.S. Patent No. 6,325,385 to Iwashita et al. (hereinafter the "Iwashita et al. '385 patent"). The claims were further rejected under 35 USC Section 103(a) as being unpatentable over U.S. Patent No. 6,444,624 to Walker et al. (hereinafter the "Walker et al. patent") in view of U.S. Patent No. 6,893,720 to Nakahigashi et al. (hereinafter the "Nakahigashi et al. patent"). The Naitoh et al. patent and Walker et al. patent were individually cited as teaching lubricating oil compositions containing, *inter alia*, molybdenum compounds. Each of the Iwashita et al. '922 patent, the Iwashita et al. '385 patent and the Nakahigashi et al. patent was cited for teaching objects, such as engine parts, coated with a diamond-like carbon film. It is alleged that, as the Naitoh et al. patent and Walker et al. patent teach that certain lubricants containing molybdenum compounds provide advantages in "engines", it would be obvious to use such compositions to lubricate parts having diamond-like carbon (DLC) coatings because the term "engines" does not exclude engines having DLC coated parts. Applicants respectfully traverse these grounds for rejection.

Applicants respectfully submit that the position taken is overly simplistic, and that the combination of references would not lead one of ordinary skill in the art to the invention as claimed. At the time the application from which the Naitoh et al. patent was granted was filed (1994), "engines" did not have parts having DLC coated surfaces, and there is no indication in the Walker et al. patent that the effects of lubricants on non-conventional engine materials (e.g., DLC coated materials) was considered. One skilled in the art would have understood and interpreted such references as being directed to lubricants for engines formed of conventional materials. One skilled in the art would further be aware of the fact that the chemistry of lubricant additives is complex, as is the manner in which different additives interact with each other. This complexity is particularly apparent with surface active additives, such as friction modifiers and antiwear agents, which either adsorb to engine surfaces (as with organic friction modifiers) or decompose to form smooth sacrificial surfaces (as with ZDDP or molybdenum compounds). With such additives, it is also understood that the use of different engine materials can alter the manner in which they function, or the efficacy thereof. Further, where different additives compete for surface area with which to interact, a change in the engine material is expected to have an effect

on which type of additive is most effective. This phenomenon is clearly demonstrated by the data of the present specification which shows that glycerol monooleate, which is known to provide excellent friction modifying effectiveness in iron on iron contact (as in engines formed of iron parts) has almost no effect on DLC on DLC contact. This is in contrast to molybdenum compounds, which are shown to provide friction reducing properties with DLC on DLC contact that is superior even to the effect of such compounds in steel on steel contact environments. One skilled in the art would not be led to expect that the claimed molybdenum compounds would be effective in the lubrication of DLC coated surfaces. At best, one skilled in the art reading the Naitoh et al. patent or the Walker et al. patent would be made aware of a number of materials that were effective in the lubrication of engines formed of conventional materials and led to test such various additives to determine which, if any such materials are effective in the lubrication of DLC coated surfaces. Thus, at best, it can be alleged that the cited prior art references would make it "obvious to try" lubricants containing molybdenum compounds in the lubrication of DLC coated surfaces. However, even if this was accepted as true, such a showing is insufficient to support an obviousness rejection presented under 35 Section 103(a).

Based upon the foregoing, applicants submit that the invention as claimed is distinguishable over the cited combination of prior art references. Applicants therefore respectfully request that all grounds for rejection presented under 35 USC Section 103 be withdrawn and the application now be passed to issue.

Respectfully submitted,



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